

1/9

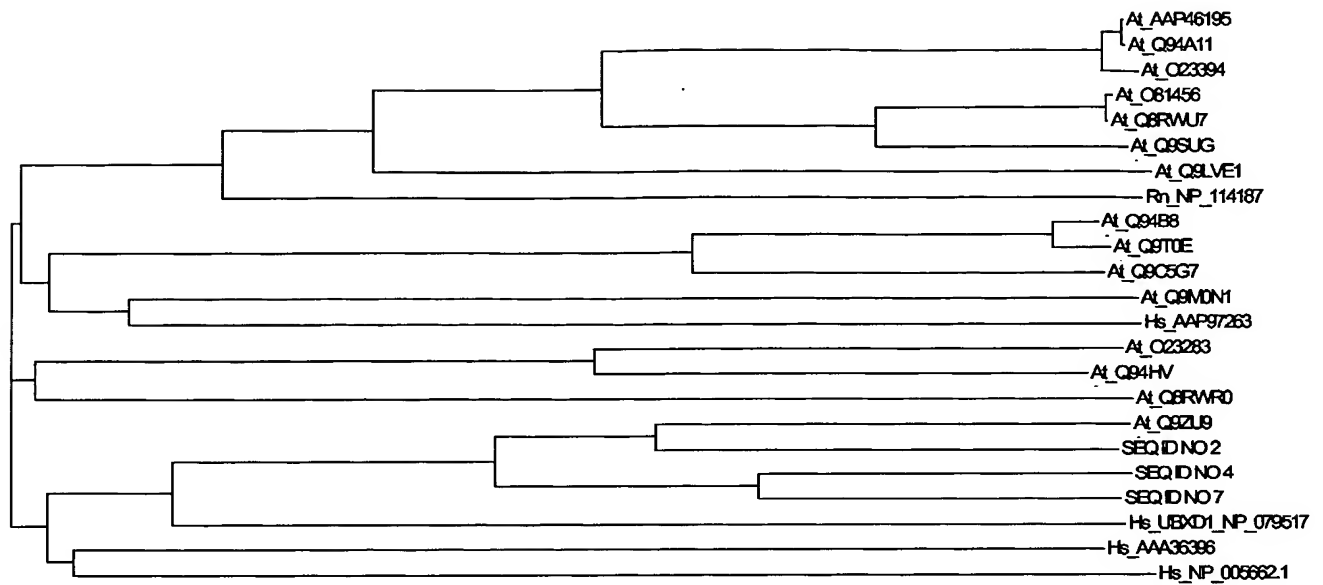


FIGURE 1 A

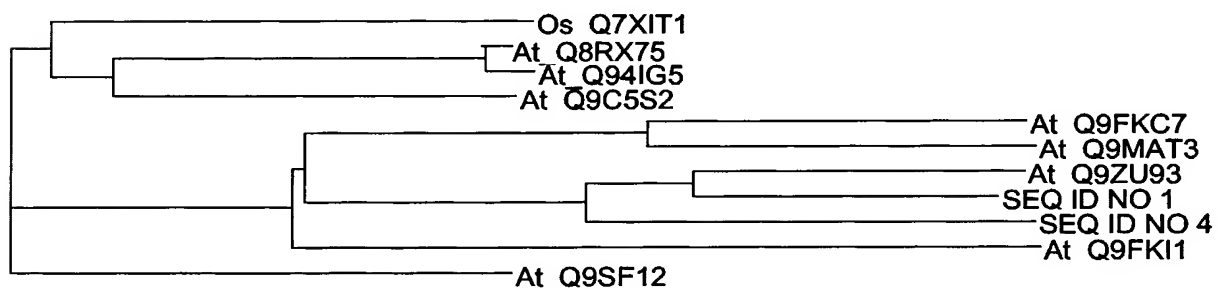


FIGURE 1B

2/9

Consensus terms for the UBX domain

YJE8_YEAST KGFLAQ-NYCTLQLKLPNGYTISNTFP-PQTKLHKVRMWL----DYNCYDDGTP-----
 CONSENSUS/80% s.t..t...splplRhssGpph.ppF..spp.lptlhthl.....s.sss.....
 CONSENSUS/65% stpptt.stsplQlRhssGpphsppFs.uppslpplhphl....t...s.ssss.....
 CONSENSUS/50% Ppppss.sps+LQlRhPDGpplscCFs.us-sLcplapaV....sptpssusss.....

YJE8_YEAST -----YLFHRNIPRVTLTRNDELKSLQEL-DLLPRSTLILEP
 CONSENSUS/80%apl.pshPch.hspt-..hph.p..thhspsslll..
 CONSENSUS/65%FpL.pshP+c.hsps-..ppl.ch.tlhPsuslllt..
 CONSENSUS/50%FpLpssaPR+slocsD..KoLp-1.sLhPsuoLlLct

Consensus terms for the PUG domain

AAF74723 EASKLLLYADNILRNPSDEKYRSIRIGNTAFSTRLLPVRGAVECLFEMGFEEG-----
 CONSENSUS/80% tslt.LLphhcNhhpp.p-.....s..hpplh.h.tsh..h...tF.ph.....
 CONSENSUS/65% pslpsLL+hl+Nhhcc.pE.....stthpctltpl.sshphhhtFscL.h....
 CONSENSUS/50% solccLLRhLRNlh+HhcEt.....tsppl+EplGslP-uhcpaFsssFPcLhh....

AAF74723 --ETHLIFPK
 CONSENSUS/80% ...phh.h.p
 CONSENSUS/65% ...phathhp
 CONSENSUS/50% ...csYplss

FIGURE 2 A

UBX domain present in SEQ ID NO 2

339 KAARKKYTKSIIRVQFPDQALLQGVFLPSEPTSALEYFVSAALKEPSLEFELLHPVLVKKRVIPHF
 PAAGERAVTVEEEDLVPAALLKFK 428

PUG domain present in SEQ ID NO 2:

173 GSVEVVIKLLKNIVKEPENAKFRKIRMGNPKIKGAIGDVVGGVELLEFVGFELKEEGGEIWA VMDV
 PS 240

UBX domain present in Q9ZU93

345 KAARKRYKRSMIRVQFPDGVVLQGVFAPWEPTFALYEFVSSALKEPSLQFELLDPVLVKRRVIPHT
 PAPGQKPITLEDEELVPSALIRFRP 435

PUG domain present in Q9ZU93

181 SSIDVLLRLFKNIVKEPENAKFRKVRMSNAKIKEAIGDVAGGVLELVLGVFELKEENDEIWA VMDV
 PS 248

FIGURE 2 B

3/9

Q9ZU93	1	MDDVKDKLKGFMKKVNLSSSSGKFKQGGRVLGSSSSSSAPPVNP IQNRFN	50
SEQ_ID_NO_2	1	MGDMKDKVKGFMKKVT-SSSSGKFKQGGRVLGGSSSSG--PSNHV-NNFS	46
Q9ZU93	51	S-----SQAPNPTPRPKPNPNPLPEKPLSSSDQKISGSTR---NPDHD	90
SEQ_ID_NO_2	47	SHPLNTRQDQQPSYT-----KTSPQKP-SNSDQRIENICEIQFNKSES	88
Q9ZU93	91	PVRAPQDGFDPYGAFITSSNRSQNGYSL-SMFECPICKNPFTSEEEVSVH	139
SEQ_ID_NO_2	89	-----KDGFDPFGELVTSGKRNPKGYSLTNVFECPCVCGSGFVSEEEVSTH	133
Q9ZU93	140	VESCLG---DTN-GDESSFEDKNNDNDKSEMEKLVVYLSGKPSSESSIDV	185
SEQ_ID_NO_2	134	IDSCLSSEVSSNLGVESKVEV-----KSELETCVSAYVSGKPSEGVSVEV	177
Q9ZU93	186	<u>LLRLFKNIVKEPENAKFRKVRMSNAKIKEAIGDVAGGVELLELVGFELKE</u>	235
SEQ_ID_NO_2	178	<u>VIKLLKNIVKEPENAKFRKIRMGNPKIKGAIGDVVGVELLEFVGVELKE</u>	227
Q9ZU93	236	<u>ENDEIWAVMDVPSEEQ</u> SILINKVVGYLEKRKTESGSSAQV--MEPVAPK	283
SEQ_ID_NO_2	228	<u>EGGEIWAVMDVPSEEQ</u> LVMLKNVVSLLLEPKKVEELASLSQVKASEPVEPK	277
Q9ZU93	284	KIDREIRVFFSVSENVASRIEVPDSFYLSADEIKREADLRRKKIAESQL	333
SEQ_ID_NO_2	278	KIDRQIRVFFSVPE\$VAAKIELPDSFFNLSREELRREAEMRKKKLED\$KL	327
Q9ZU93	334	LIPRSYKEKQAKAARKRYKRSMIRVQFPDGVVLQGVFAPWEPTFALYEFV	383
SEQ_ID_NO_2	328	LIPKSYREKQAKAARKKYTKSIIRVQFPDGALLQGVFLPSEPT\$ALYEFV	377
Q9ZU93	384	SSALKEPSLQFELLDPVLVKRRVIPHTPAPGQKPITLEDEELVPSALIRF	433
SEQ_ID_NO_2	378	SAALKEPSLEFELLHPVLVKRRVIPHFPAAGERAVTVEEEDLVPAALLKF	427
Q9ZU93	434	RPIETDSLVTGLRNELLEISEPLS	458
SEQ_ID_NO_2	428	KPIETDSVVFTGLCNELLEISEPLETGSVASS	459

FIGURE 2 C

4/9

SEQ_ID_NO2	1	MGDMKDKVKGFMMKKVTSSSSG---KFKGQGRVLGGSSSSSGPSNHVNNFSS	47
		. .	
SEQ_ID_NO4_C	1	mmkdkmkefmkvtsssgsgtpssfkgtshvlg----sgpsps----ss	40
SEQ_ID_NO2	48	HPL----NTRQDQQPSYTKTSPQKPSNSDQRIENICEIQFNKSESKDGFD	93
	: : :	
SEQ_ID_NO4_C	41	hpaarssnpsnlrpapkrtsptptlttdlts-----	74
SEQ_ID_NO2	94	PFGEIVTSGKRNPKGYS---LTNVFECPCVCGSGFVSEEEVSTHIDSCLS	140
		.. .	
SEQ_ID_NO4_C	75	-ftplvcyssrrpdangtaCavatvacpscgcgdafpselavsehldgclas	123
SEQ_ID_NO2	141	EVSSNLGVESKVEVKSELETCVSAYVSG--KPSEGSGVEVVIKLLKNIVKE	188
	: ...: ...: ...: ...: ...: ...: ...: ...:	
SEQ_ID_NO4_C	124	ag----garar-----aaaylaadppppaasvevvkrllgnllre	159
SEQ_ID_NO2	189	PENAKFRKIRMGNPKIKGAIGDVVGGVELLEFVGFELKEEGGEIWAVMD-	237
		. .	
SEQ_ID_NO4_C	160	pgndkfrvrnlgnprikealadrdggvelleavgftvgdeggepfavmde	209
SEQ_ID_NO2	238	VPSEEQLVMLKNVVSLL-----PKKVEELASLSQVKASEPVE-PKKI	279
		: .	
SEQ_ID_NO4_C	210	vpsdprlngirravlllegahpsappvkaeaeakescsnvsvdvggakti	259
SEQ_ID_NO2	280	DRQIRVFFSVPEVAACKIELPDSFFNLSREELRREAEMRKKKLEDSKLLI	329
	 : : : : : : : : : : : : : : : : .	
SEQ_ID_NO4_C	260	drqirvfsvpgssmaqndvpdsfyklsgeeirneakmrrerleqsrlli	309
SEQ_ID_NO2	330	PKSYREKQAKAARKKYTKSIIRVQFPDQALLQGVFLPSEPTSALEYFVSA	379
		: . : .	
SEQ_ID_NO4_C	310	pksykekqalaarqkykqavirvqfpdrmilqgflpgeatsslyefvts	359
SEQ_ID_NO2	380	ALKEPSLEFELLHPVLVKKRVIPHFPAAGERAVTVEEEDLVPAALLKFKP	429
		:.. : .	
SEQ_ID_NO4_C	360	alkqsglefelispaipkprvvphfpnpperartlqeeelvpsallkfip	409
SEQ_ID_NO2	430	IETDSVVFTGLCNELLEISEPLETGSVASS	459
	 : .	
SEQ_ID_NO4_C	410	ketdsmvftgllldellmaseplpaasq	436

FIGURE 2 D

5/9

SEQ_ID_NO_4	1	mmkdkmkefmkkvt--ssgsgtpssfkgtshvlgsgpspssshpaarssn	48
SEQ_ID_NO_7	1	MMKEKMKDLMRKVTSSSSSSSSSSSFKGTAHVLGSGPDPSS-----RPSN	45
SEQ_ID_NO_4	49	pspnlrpapkrtspptpptlttdltsftplvcyssrr--pdangtaCava	96
SEQ_ID_NO_7	46	PTPSRPAAPRREAAASARPPSSGFAPYSPLISTSSRRTDPPAGAGAGEDD	95
SEQ_ID_NO_4	97	tvacpscgdafpselavsehldgclasaggararaaaylaadppppaasv	146
SEQ_ID_NO_7	96	AVACPSCAEPFPSELAVSDHLDGCLAAAGGARPRAAAYLAGD--PPASAV	143
SEQ_ID_NO_4	147	evvkrllgnllrepngndkfrvrllgnprikealadrdggvelleavgftv	196
SEQ_ID_NO_7	144	<u>EVVKRLLGNLLSDPRNDKYRKVRLGNPRIKEALADREGGVDLLEAVGFRV</u>	193
SEQ_ID_NO_4	197	gdeggepfavmdevpsdprlngirravlllegahpsappvkaeaeakesc	246
SEQ_ID_NO_7	194	<u>ADEGGELFALMDEVPGDARLGGIRQAVLLLERARPSTPP-QTQADAKETC</u>	242
SEQ_ID_NO_4	247	sn-vsdvqegaktidrqirvfsvpgssmaqndvpdsfyklsgeeirnea	295
SEQ_ID_NO_7	243	PNGVSEEQGIKKPVDRQIRVFFSVAASSVAENDLPDSFYSLSNEEIRNEA	292
SEQ_ID_NO_4	296	kmrrerleqsrllipksykekqalaarqkykqavirvqfpdrmilqgifl	345
SEQ_ID_NO_7	293	KMRREERLEQSRLIPKSYKEKQ ALAAARQKYKQALIRIQFPDGVILQGVFL	342
SEQ_ID_NO_4	346	pgeatsslyefvtsalkqsglefelispaipkprvvphfpnpgerartlq	395
SEQ_ID_NO_7	343	PAEPISSLYEFVASSLKQPSLEFDLICPAGPRTRVIPPFPKPGEQARTLR	392
SEQ_ID_NO_4	396	eeelvpsallkfipketdsmvftgllldellmaseplpaasq	436
SEQ_ID_NO_7	393	DEDLVPSARLTFKPKETDSVVFTGLLDELLETSEPFTSASS	433

FIGURE 2 E

6/9

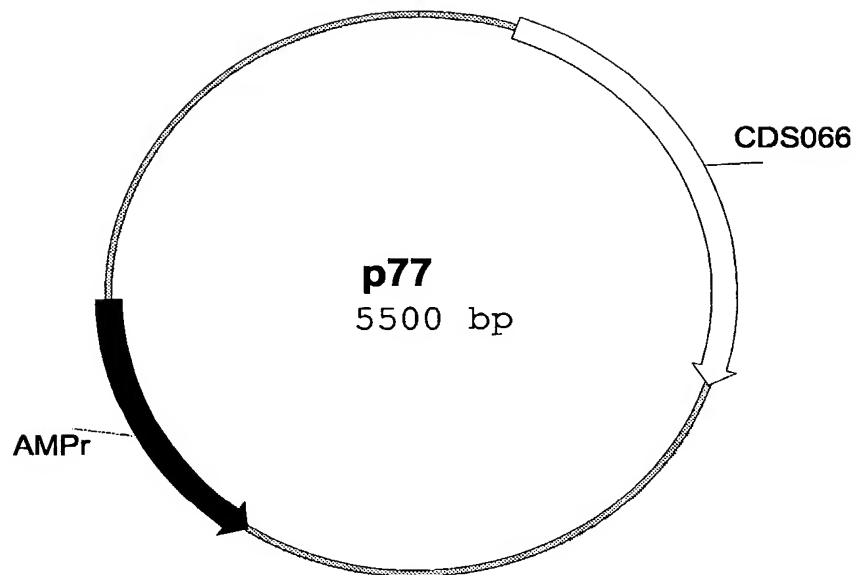


FIGURE 3

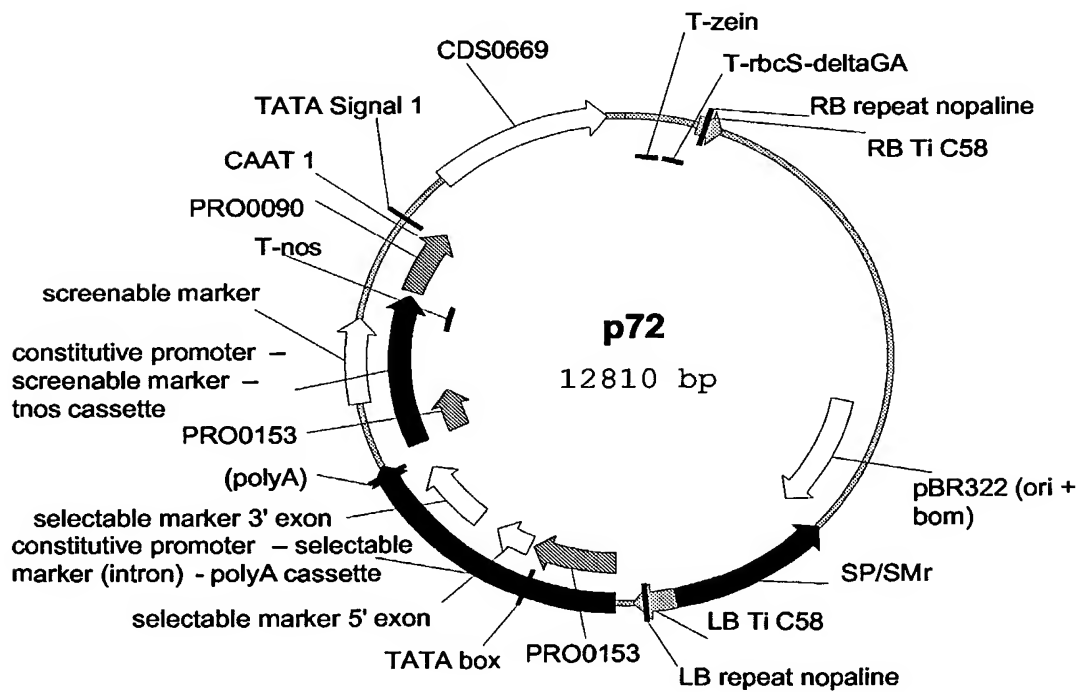


FIGURE 4

7/9

SEQ ID NO 1: GRUBX coding sequence

atgggtgacatgaaggataaagtc aaagggttc atgaaaaagtcacatcttcttcttcaggtaagttta
aaggccaaggtaggggttttgggtggttc atcttcttcaggaccctcaa atcatgtcaataat tttttcatc
acatcccctaaatacaaggcaagatcaacaaccttc atatacaaaaacttcgcctcaaaaaccaagtaat
tctgatcaaagaattgagaatatatgtgaaattc agttcaacaaaagtg aatcaaaggatgggttttgatc
catttgggtgaattagtcacttctgggaagagaaa cccaaaagggtattc acttactaatgtgtttgaatg
ccctgtctgtggtagtggttttgtttctgaagaag aggtgtcaactcatattgatagctgtttaagttct
gaagtgtcttctaatttgggagttgaaagtaa agttgaagttaaaagtg aattggaaacatgtgttagtg
catatgttttcagggaagccctcagaagggtc agttgaagtggtcatt aagttgttaaagaatattgtgaa
ggaaccagagaatgccaaagtttaggaaaata aggatggggaatccaaaaataaaagggtgctatagggtgat
gttgtaggaggagtgaggactattggaatttgttg gatttgagttgaaagaagaagggtggggaaatttggg
ctgtgatggatgttccttctgaagaacaacttgt tatgtcttaagaatgtagtttctactcttggaaaccgaa
gaaggttgaaagagttggcgctccttatcccaag ttaaggcgagtg aaccagttgagccgaagaagattgat
agacagattcgagtggttcttttctgttcccga gacgtagcagcaaaaattg agctacctgattccttct
ttaacctctcacgtgaggaattgagaagagaagc agagatgaggaagaagaattagaagattccaaatt
attgattcctaaatccttatcgggaaaagcaggc aaaaagctgcaagaaagaagtacacaaaatccattatc
cgtgtacagtttccagatggagcattgttcaagg tgtctttctaccttcggagccaactagtgtctctt
atgagtttgtgagcgcagcgtaaaggaaccaagc ttagagttcgaattgttacatccgggtgcttgtaa
aaagcgggtgattccccattttccagctgctggg gagaggggctgtaacagttgaagaggaggatttggtt
cctgcagctctactcaaatttaaacctatcgaa acagattctgttgttttactggctcttgtaatgagc
ttcttgaaattagcgagccctcagagaccggatc agttgtctcctcgtaa

SEQ ID NO 2: GRUBX, deduced protein sequence

MGDMKDKVKGMKKVTSSSSGKFKGQGRVLGGSSSSGPSNVNFFSSHPLNTRQDQQPSYTKTSPQKPSN
SDQRIENICEIQFNKSESKDGFDPFGELVTSGKRNPKGYSLTNVFECPVCGSGFVSEEEVSTHIDSLSS
EVSSNLGVESKVEVKSELETCVSAYVSGKPSEG SVEVVIKLLKNIVKEPENAKFRKIRMGNPKIKGAIGD
VVGVELLEFVGFELKEEGGEIWA VMDVPSEEQLV MLKNVVSLLPKKVEELASLSQVKASEPVEPKKID
RQIRVFFSVPE SVAAKIELPDSFFNL SREELRREAEMRKKKLED SKLLIPKSYREKQAKAARKKYTKSII
RVQFPD GALLQGVFLPSEPT SLYEFVSAALKEPSLEFELLHPVLVKKRVI PHFPAAGERAVTVEEEDLV
PAALLKFKPIETDSVVFTGLCNELLEISEPLETGSVASS

SEQ ID NO 3: GRUBX orthologue from sugarcane

atgatgaaggacaagatgaaggagttcatgaaga aggtcacctcctccgggtccgggacccccctcctcct
tcaagggcacctccacgtcctcggctccggccccctccccctcctcctcccaccccgtgcccgctcctc
aaaccctagcccaaacctcaggccccgtcctaagcggacctcgccacctaccccgccactttaaccacc
gatttgacctccttcaagccccctcgtctgtactcctcccgccgccccgacgcgaacggcaccgcgnnng
ccgtcgccacccgtcgcggtgccccagctgcggagacgcgtttccgtccgagctcgccgtctccgagcatct
cgacggctgcctcgcgctcgggggggggcgccgcgcgcgcgcgcgcgcgtacctcgccgcccagccgcct
ccgcccgcggcctccgtagaggtggtcaaacgcctgctgggcaacctgctccgggagcccggcaacgata
agttcaggcggggtgagattgggtaaccgcggatcaaggaggccctggcagacagggtggtgggggtgga
gctcctggaggccgtcggttccacagttggggatgagggcggggagcccttcgccgtgatggacgaagtg
cctagcgaccctagggtcaacgggatcaggaggggccgtcctcctgctcgagggggcacacccctctgcgc
ctccagtgaaggcgagggtgaggccaaggagagctgcagcaatgtgtctgacgtgcaggagggtgctaa
gactattgatcggcagattcgggtatttgtctctgttccctgggagttctatggcacaaaatgatgtacca
gattcttttttacaagcttagtggtgaggagataaggaatgaagcaaagatgaggaggggaaagggttagaac
aatctcgattgctgataccaaagtcttacaaggagaaacaggcattggctgctcgacagaagtataaaca
agcagtcattcgagttcagtttccagatagaatgattcttcaggggcataattcctaccaggagaggccact
agttcactgtatgagttcgtcacatctgctctgaagcaatcagggtttggaattcgaacttatctctccag
ccatacctaagccacgtgtggtgccccattttccaaacccgggagagcgggcacgcaccttgcaagagga
ggagctggtcccatctgcgtcctcgaagttcattccaaaggagactgattccatgggttttcaccgggttg
cttgatgagcttctcatggccagtgagccgcttctcgtgctcatcacaatga

FIGURE 5

8/9

SEQ ID NO 4: sugarcane GRUBX orthologue, deduced protein sequence

MMKDKMKEFMKKVTSSSGSTPSSFKGTSHVLGSGPSPSSSHPAARSSNPSPNLRPAPKRTSPPTPPTLT
DLTSFTPLVCYSSRRPDANGTAXAVATVACPSCGDAFPSELAVSEHLDGCLASAGGARARAAAAYLAADPP
PPAASVEVVKRLGLGNLLREPGNDKFRRVRLGNPRIKEALADRDGGVELLEAVGFTVGDGEGPEFAVMDEV
PSDPRLNGIRRAVLLLEGAHPSAPPVKAEEAKESCSNVSDVQEGAKTIDRQIRVFSVPGSSMAQNDVP
DSFYKLSGEEIRNEAKMRERLEQSRLIIPKSYKEKQALAAQKYKQAVIRVQFPDRMILQGIPLPGEAT
SSLYEFVTSALKQSGLEFELISPAIPKPRVVPHPNPGERARTLQEEELVPSALLKFIPKETDSMVFTGL
LDELLMASEPLPAASQ

SEQ ID NO 5: expression cassette comprising GRUBX (1011-2390) operably linked to the prolamine promoter (1-654) and the T-Zein + T-Rubisco deltaG terminator (2615-2808 and 2852-3048):

cttctacatcggttaggtgtagcaacacgactttattattattattattattattattattattttaca
aaaatataaaatagatcagtcacctcaccacaagtagagcaagttggtgagttattgtaaagttctacaaa
gctaattttaaagttattgcattaaacttatttcatattacaaacaagagtggtcaatggaacaatgaaaac
catatgacatactataattttgtttttattattgaaattatataattcaaagagaataaatccacatagc
cgtaaagttctacatgtggtgcattacccaaatatatatagcttacaaaacatgacaagcttagtttgaa
aaattgcaatccttatcacattgacacataaagtgagtgatgagtcataatattattttctttgctacc
atcatgtatatatgatagccacaaagttactttgatgatgatatacaagaacatttttaggtgcacctaa
cagaatatccaaataatatgactcacttagatcataatagagcatcaagtaaaactaacactctaaagca
accgatgggaaagcatctataaatagacaaagcacaatgaaaatcctcatcatccttcaccacaattcaaa
tattatagttgaagcatagtagtaattttaaactcaactagggatatcacaagtttgtaaaaaaagcaggc
tggtaccggtccggaattcccggtatcgctcgaccacgcgtccgccaatatcagatttctttcatgaa
ctccacttccaatttctcattgcttcttcttccatttccacctccaaagccatccttcagaaaaacctt
gttctctacatttcttagccccaaaaaagattcccattctcaattccacaaaaaacacaggagatctaa
ggaaattccccgcctctatatatagagaggtggaattgttctgaatttggtttgaattgattgattgac
agatttttggtgagaggggtgttattgaaaaaatgggtgacatgaaggataaagtcaaaggggttcatgaaa
aagtcacatcttcttctcaggtaagttttaaaggccaaggtaggggttttggtggttcatcttctcagg
accctcaaatcatgtcaataatttttcatcacatcccctaaatacaaggcaagatcaacaaccttcatat
acaaaaacttcgcctcaaaaaccaagtaattctgatcaagaattgagaatatatgtgaaattcagttca
acaaaagtgaatcaaaggatgggttttgatccatttggtgaattagtcacttctgggaagagaaaacccaaa
agggtattcacttactaatgtgtttgaatgccctgtctgtggttagtggttttggttctgaagaagagggtg
tcaactcatattgatagctgttttaagttctgaagtgcttcttaatttggtgagttgaaagtaaagttgaag
ttaaagtgattggaacatgtgttagtgcatatgtttcaggggaagccctcagaaggggtcagttgaagt
ggtcattaaagttgttaaagaatatgtgaaaggaaccagagaatgccaaagtttaggaaaataaggatgggg
aatccaaaaataaaaggtgctataggtgatgtgtgtaggaggagtgagctattggaatttggtggatttg
agttgaaagaagaaggtggggaaatttggtgctgtgatggatgttcttctgaagaacaacttggtatgct
taagaatgtagtttctactcttggaaccgaagaaggttgaagagttggcgtccttatcccaagttaaggcg
agtgaaccagttgagccgaagaagattgatagacagattcgagtggttcttttctgttcccagagagcgtag
cagcaaaaattgagctacctgattccttctttaacctctcacgtgaggaattgagaagagaagcagagat
gaggaagaagaattagaagattccaaattattgattcctaaatcttatcgggaaaagcaggcaaaagct
gcaagaaagaagtacacaaaatccattatccgtgtacagtttccagatggagcattgcttcaaggtgtct
ttctaccttcggagccaactagtgctctttatgagtttgtagcgcagcgttaaaggaaccaagcttaga
gttcgaattgttacatccggtgcttgttaaaaagcgggtgattccccattttccagctgctggggagagg
gctgtaacagttgaagaggaggatttggttcttgcagctctactcaaatttaacctatcgaacagatt
ctgttggttttactggtcttttgtaatgagcttcttgaaatttagcgagccccctcgagaccggatcagttgc
ttcctcgtaagctctaaattacatcagactttgaattcttctgagtggttggaaccttataaaaactctct
gcgccgggaatgctgcggccgctctagagtatccctcgagggggcccaagcttacgcgtaccagctttct
tgtacaaagtggtgatatacacaagcccggtcttctagggataacagggtaatttatatccctctaga
tcacaagcccggtgcttctacgatgattgagtaataatgtgtcacgcacatcccatgggtggcagtg

FIGURE 5 (continued)

9/9

cagtgtgagcaatgacctgaatgaacaattgaaatgaaaagaaaaaagtactccatctgttccaaatta
 aaattcatttttaaccttttaatatagggtttatacaataattgatatatgttttctgtatatgtctaatttgt
 tatcatccggcggtcttctagggtataacagggttaattatatccctctagacaacacacaacaaataaga
 gaaaaaacaataatattaatttgagaatgaacaaaaggaccatatcattcattaactcttctccatcca
 ttccattttcacagttcgatagcgaaaaccgaataaaaaacacagtaaattacaagcacacaacaaatggta
 caagaaaaacagttttcccaatgccataataactcgaac

SEQ ID NO 6: *Oryza sativa* GRUBX orthologue, DNA sequence

atgatgaaggaaaagatgaaggatctcatgaggaaggtcacctcctcctcctcctcctcctcgtcgtcct
 cctccttcaagggcaccgccacgtcctcggctcggcccgacccctcctcccgccctccaaccctac
 ccctagtcgccccgtgcccccgcgagaggccgcccctccgagaggccgcccctcctccggcttcgcc
 ccctactccccgctcatctccacctcctcccgccgcaccgacccaccgcggggcgggggcgggggagg
 acgacgccgtcgctgccccagctgcgccgagccgttccccctccgagctggcggtgtcggaccacctcga
 cggtgcctcgcgcgcggggggagcccgcccccgcgcgccgacctacctggcgcgaccccccgcg
 tccgcccgtggaggtggtgaagaggctgctcggggaacctgctctccgacccccggaacgacaagtacagga
 aggtcaggctcggggaacccgaggatcaaggaggccctggcggaacagggagggcggggtggatctcctcga
 ggccgtgggggttcagggtcgccgacgagggcggggagctcttcgccctcatggacgaggtgcccggggac
 gcgaggctcgcgcgcatcaggcaggccgtgctcctgctcgagagggcccgccatcgacgcgcgcgcaga
 cacaggcagatgccaaagagacttgcccgaatggagtttagcgaagagcaggggattaagaagccggttga
 tcgtcagattcggggtgttcttctctgttgcagaaatgatctaccagattctttc
 tatagccttagtaatgaggagatcaggaatgaggcaaagatgaggagggagaggctagaacaatctcgg
 tgttgattccaaagtcatataaggagaagcaggcactggctgcccacagaagtataaacaagctctgat
 tcgaattcagttttccggatggagtaattctgcagggtgtgttcttcccgcgagcccattagttcacta
 tatgagtttgcgcacatcttctttgaagcagccaagtttggaattcgatcttatctgtccagcgggtccta
 ggacacgcgtcatacctccttttccaaaaccaggggaacaggcacgcacactgcgggatgaagacctagt
 cccttctgctcggtcaccttcaagcccaaagagactgattcggttggttgcactggtctgttggacgag
 cttcttgagaccagtgagccgttcacatctgcacatcctcatga

SEQ ID NO 7: *Oryza sativa* GRUBX orthologue, deduced protein sequence

MMKEKMKDLMRKVTSSSSSSSSSSSSSFKGTAVLGSGLPSSSRPSNPTPSRPAAPRREAAASARPPSSGFA
 PYSPLISTSSRRTPPAGAGAGEDDAVACPSCAEPFPSELAVSDHLDGCLAAAGGARPRAAAYLAGDPPA
 SAVEVVKRLGNLLSDPRNDKYRKVRLGNPRIKEALADREGGVDLLEAVGFRVADEGGELFALMDEVPGD
 ARLGGIRQAVLLERARPSTPPQTQADAKETCPNGVSEEQGIKKPVDRQIRVFFSVAASSVAENDLPDSF
 YSLSNEEIRNEAKMRRERLEQSRLIPKSYKEKQALAAARQKYKQALIRIQFPDGVILQGVFLPAEPISSL
 YEFVASSLKQPSLEFDLICPAGPRTRVIPPFPKPGEQARTLRDEDLVPSARLTFKPKETDSVVFTGLLDE
 LLETSEPFTSASS

FIGURE 5 (continued)